

# Investigating Factors Affecting the Sustainability of Corporate Funded Community Based Projects: The Case of Mopani Copper Mine-Mufulira (Kankoyo)

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The research is funded by the Government of the Republic of Zambia, under the Directorate of Human Resource Development, Cabinet Office through Luapula Provincial Administration.

## Abstract

This study was undertaken in order to investigate factors affecting the sustainability of CSR funded community based projects as well as examine their implementation challenges. A questionnaire as a source of primary data was administered to 96 respondents in Kankoyo. The findings revealed that the majority of the projects were not sustainable. This may be attributed to lack of Mopani establishing roles for community members in the projects as well as monitoring them. There was also lack of regular communication between Mopani and the Community. The management of both Mopani and Community changes in membership was also not there. Lastly, Mopani didn't consider the community as a key partner in their CSR projects. This could have been due to the community's inability to contribute (labour, material or money) towards the projects. Overall, there was no partnership between Mopani and the Kankoyo Community in CSR community based projects. The resultant effects were lack of partnership with the community and mismanagement of the facilities by the community which resulted in the un-sustainability of projects. Hence, the study established that a well partnered stakeholder approach was appropriate for the sustainability of the projects with suitable roles, communication and management of any changes. All in all, there was a challenge of lack of full partnership by other stakeholders (Kankoyo Breweries, CEC, Council, Government etc.) which affected the sustainability of the Mopani based community projects. Based on the findings, some recommendations are made which include Mopani partnering with not only the kankoyo community but also with other stakeholders too.

**Keywords:** Corporate Social Responsibility, Sustainability, Projects, Partnership, Community.

## 1. Introduction

From time in memorial, the extractive sector took a 'devil may care' attitude to the negative effects of its activity outcomes; operated and mined without social legality and caused serious destruction to the environment and leave after exhausting all valuable minerals using cost benefit analysis as an excuse (Jenkins 2004). Hence, sustainable development in the mining industry was only initially focused on the economic sustainability of the mining companies alone leaving out the host society (Chenga et al. 2006). Nevertheless, the mining industry globally has been addressing its social and environmental responsibilities; numerous factors led the industry to take a leading role in this debate regarding social and environmental sustainability (Cowell et al., 1999). As a consequence, Corporate Social Responsibility (CSR) programmes of many mining companies have focused on community initiative projects as the impact of its operation is felt greatest at the local level. This led to the expansion of this narrow definition and later political, educational, psychological and social dimensions were taken on board. Taking account of this perspective of the concept, it can now be defined to include social and economic progress which ensures human development and during which the basic needs are satisfied (Treurnicht, s., et al 1977; Kirby, J., et al 1995).

Conversely, as observed by Frynas (2005) the effectiveness of CSR initiatives in the energy and mining sectors has been increasingly questioned, as multinational mining companies have little or no evidence as to how this recognition of the need to address sustainability issues has affected communities as well as whether their community development initiatives have been effective in contributing to more sustainable communities in areas where they operate. There is also some risk that in undertaking CSR, a dependency for financial or otherwise will develop which can lead to serious consequences for the dependent community, particularly after the mine closes as it has significant impact on surrounding communities, not only because of the loss of jobs and economic opportunities, but also the environmental damage left.

In Kankoyo, Mopani Copper Mine has implemented CSR projects aimed at uplifting the living standards of the people through projects i.e. Health, Education, Water and sanitation and infrastructure, etc. Many people living in mining communities live in greater misery in sight of mines - due to water pollution and

toxic fumes and the depression that follows dashed hopes. The mining communities in Zambia have been classic cases. According to Lee (2012), he observed that mining townships in Zambia have been poverty-stricken though they sit in the shadow of Africa's giant mines. Despite copper prices rising on the international market due to China's insatiable appetite for the minerals, mining communities continue to live in poverty - with limited (or no) access to basic services and very few ways to scrape a living.

According to Chenga et al (2006), communities surrounding Mines are in most cases confronted with social problems that include poverty, disease, unemployment, adult illiteracy, poor housing, family disorganization and uncontrollable migration, despite efforts by the mining company to address these. This assertion is also true to Kankoyo where Mopani Copper Mine operates, it's not just the poverty that shocks there but also the mine's chimneys belch fumes into the sky, polluted water sources and Sulfur from the mines, raw sewage and waste from the community.

The Mine has a Corporate Affairs Department responsible for the identification, funding, implementation, monitoring and evaluation of Community Based Projects; however, community partnership has never been explored.

## **2. Definition of concepts**

### **2.1 Sustainability**

According to Hodgkin (1994:21) he defined sustainability as "the ability of a development project to maintain or expand a flow of benefits at a specified level for a long period after project inputs have ceased." Thus, sustainability is dependent on the degree of self-reliance developed in target communities and on the social and political commitment in the wider society to development programs (projects) that support the continuation of newly self-reliance communities (Lovell,1999). As observed by D'Amato et al., (2009), sustainability refers to an organization's activities that demonstrate the inclusion of social and environmental concerns in interacting with stakeholders. Consequently, community members are expected to be actively involved in the process of interventions through planning, implementation, monitoring and evaluation and operation. Therefore, involving community is a way to ensure that the benefits brought by a development project will be maintained after the external interventions are stopped as they are expected to acquire project management skills and knowledge that will later enable them to take over the project in the future.

### **2.2 Community**

As Sheldon (1994) argues, some communities are homogeneous while others are heterogeneous; and some united while others conflictive. Zenter (1964) points out three aspects of communities i.e. a group structure, whether formally or informally organized; have some degree of collective identification with the occupied space and lastly has a degree of local autonomy and responsibility. Bray (1996) presents three different types of communities, applied in his study on community financing of education. The first being geographic community, than ethnic, racial, and religious and those based on shared family or educational concerns.

### **2.3 Project**

Little and Muffles (1982) defined a project as a building block of an investment plan while Project Management Institute (1996) defined it as a temporal effort addressed to create a unique product or service. Conversely, a project can be defined as having constraints (usually centered around time and resources, but also including all aspect of the process and the outcome); projects are processes that in many circumstances are core business for organization.

### **2.4 Scope of a project**

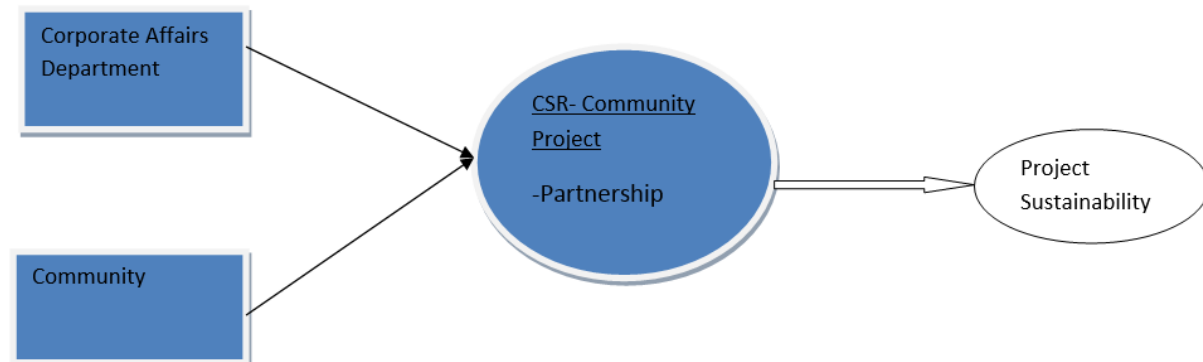
According to Turbit, (2005) a scope is a bounded description of the data and control, function, performance, constraints, interfaces and reliability sufficient to determine project feasibility and create an initial plan. Scoping Techniques include: FAST (Facilitated Application Specification Technique), QFD (Quality Function Deployment). Scope is affected by: customers' needs, business context, project boundaries, customers' motivation and likely paths for change.

### **2.5 Corporate Social Responsibility**

As Calderón discusses: "It is a model of management voluntarily chosen by the company, which makes it incorporate in its business strategy the respect for ethical values, persons, the community and the environment; in the same time it permits keeping on listening and answering to the needs and expectations of the different publics the company is related to, called the stakeholders" (Calderón, 2009:8). According to Ireland, (2007) it's a continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families, as well as of the local community and society at large. Corporate social responsibility (CSR) as observed by Crother et al., (2008) refers to strategies

corporations or firms conduct their business in a way that is ethical, society friendly and beneficial to community in terms of development. The investments are usually in infrastructure, building social capital and building human capital (ibid).

**Figure 2.1: Conceptual framework model**



Source: Author's model

### 3. Research methods and approaches

#### 3.1 Research Design

The research will be exploratory so as to increase the researcher's familiarity with the problem, in gathering information about practical problems, in clarifying concepts, in formulating a problem for more precise investigation and in establishing priority for further research. Factors affecting the sustainability of different CSR projects are almost the same. It is because of this, that an exploratory survey- based study of CSR initiated projects was conducted to evaluate the validity of these factors.

#### 3.2 Sampling Design and Sample Size random

Since it is not possible to pick all the respondents, a sample was randomly picked for the survey through stratified sampling. Adediran and Adediran (2008) describe sampling as the process of selecting a sufficient number and the right type of elements for study from a certain population. This allows the researcher to generalize findings, as it is impossible to examine the whole population (Frankfort-Nachmias and Nachmias, 1996 as quoted in Adediran and Adediran, 2008).

Sample is defined as a portion or subset of the population, the size of which is determined by the type and objective of the study, as well as time and financial constraints (Fink, 1995). Leedy (1997:205-206) adds that a sample is a representative subgroup of the population that is chosen for direct observation (Ncube, 2004:121).

Stratified random sampling method through which 120 respondents were picked was used. From this, 2 were Mopani staff, 1 local district administration, 1 Local Government Staff, 3 local Government Area councilors (key respondents), while 7 local religious leaders and 89 local community members (sample size).

#### 3.3 Data Collection Instruments

The data collection instrument used in this phase of the study was a structured questionnaire developed by the researcher, supplemented by interviews. Participants were asked to express both their experiences and their attitudes relating to the importance and feasibility of stakeholder partnership to achieve sustainability on CSR community based projects. Interviews lasted for 1 hour on average; with the shortest lasting 45 minutes and the longest 1 hour 30 minutes.

#### 3.4 Data Analysis Techniques

The data collected (qualitative) from primary source was analyzed by bringing out emerging themes that were categorized and interpreted. These themes were used as the variables whose frequency distribution showed which ones were more recurring than others thereby providing answers to the study. Furthermore, quantitative data was processed using the Statistical Package for Social Science (SPSS) software. Descriptive statistics were applied to the processed data by showing variable frequency distributions from learner's responses. Data were presented using graphs, tables and percentages. The measure for the independent variable was determined by use of Likert scale, which ranked how strongly each independent variable affected the dependents variable.

#### 3.5 Profile of the Study Area

Kankoyo Township is located on the downwind of the smoke spewing out of Mufulira Copper Mine's blast furnace. The Township lies between 28° 13' 49" 57" E and 12° 31' 55" S of Mufulira town on the Copperbelt

province of Zambia (SRK Consulting, 2003). Generally, its altitude is 1288 meters and topography between elevations of 1,250 and 1,400 meters (Mopani Copper Mine, 2004). Kankoyo area is drained by a number of streams such as Luansobe, Butondo, Mupambe and Kansuswa which eventually discharge into the Kafue River located about 15 km to the west of the Township (Mopani Copper Mine, 2004).

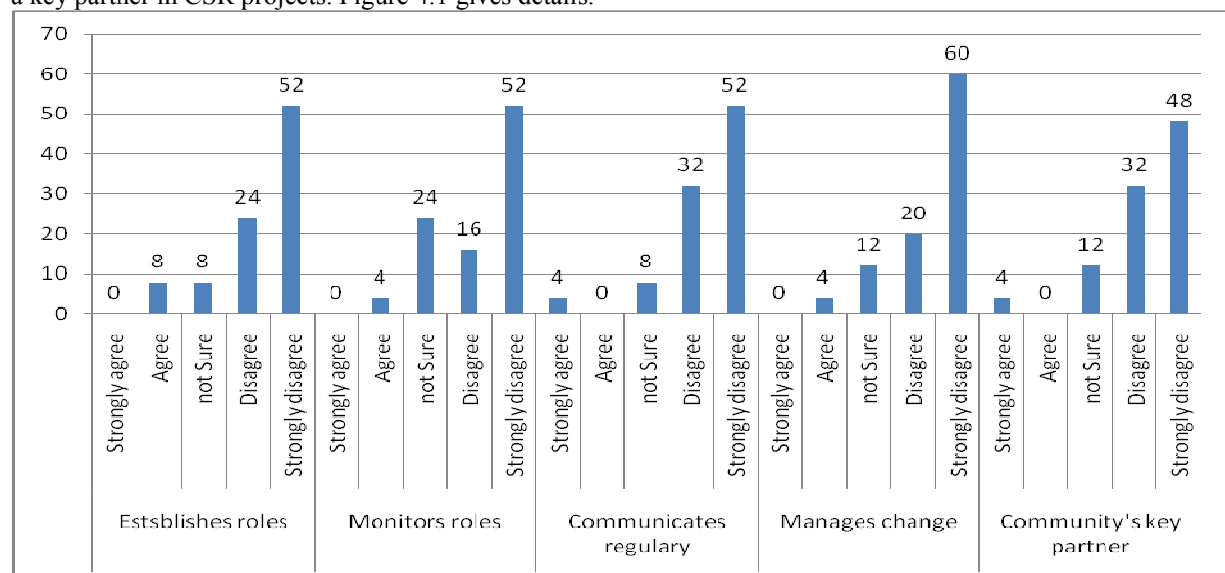
The mining industry is the principal employer for people on the Copperbelt province. However, MCM (2004) states that labour shocks brought about by the privatisation of the mining industry in 1991 triggered high unemployment levels in Kankoyo Township. High unemployment levels have further translated into high poverty levels among the people. Consequently, most residents do not have access to social services such as good sanitation and contaminated water. Open and leaking sewers and dilapidated shacks with tin roofs corroded by acid rain exist. Christophe (2009) suggests that due to the open sewers, cholera (typhoid and malaria) is common in the area.

#### 4. Results of the findings

We examine the variable grouped under common theme.

##### 4.1 Partnership

On community partnership by Mopani with the Kankoyo residents in CSR Community based projects in Kankoyo Township, 79% of the respondents indicated that MCM does not establish roles for the community in CSR projects while 71% said the roles were not even monitored. Additionally, 88% respondents said MCM does not communicate regularly with the community regarding the projects. On managing change in community composition, 83% were of the view that MCM did not while 83% said MCM did not consider the community as a key partner in CSR projects. Figure 4.1 gives details.



**Figure 4.1 Partnership**

##### Analysis

The findings on partnership revealed that MCM did not establish or monitor roles for community members in their CSR community projects. This was evident from further findings that MCM does not even communicate regularly with the recipient community during the planning; implementation and management of the projects which has made MCM fail to even manage changes in community partnership composition. The resultant effect, as evidenced from the findings is MCM's failure to consider the community as a key partner. Additionally the ineffective communication channels has resulted in community members not being aware of the CSR projects as well as making their management and effective monitoring a night mare. Therefore, the community does not actively take any role in the projects resulting in community project management failures.

##### 4.2 Comparing partnership variable and sustainability.

The hypothesis testing was done through a t-test comparing partnership (independent) with sustainability (dependent) variable. For the purposes of this research, sustainability projects were taken to be those that had a p-Value of  $\geq 0.05$ .

**Table 4.1 Partnership - t-test results**

Hypothesis	t-Value	p-Value	Comment
Ha1: Partnership support does contribute to the sustainability of community based projects	-7.38	1.0000	Hypothesis not supported

**Source: Author's field survey compilation (2015)**

In the above, it was initially hypothesized that community based projects that were partnered with the community will be more sustainable than those not receiving. The t-test result shows a p-value of 1.000, suggesting that the hypothesis is strongly supported. From the above hypotheses, the partnership test showed less significant ( $P > 0.05$ ) variation. The results imply that this factor did not contribute and therefore was not major a factor in community project sustainability.

## 5. Research findings and their implications

### 5.1. Sustainability vs Partnership

Results from table 4.1 indicate that, the level of partnership is positively related to sustainability of a community based project implemented by Mopani mine in Kankoyo. If partnership is not there or it is inadequate, projects will be un-sustainable. This result is consistent with the findings from the literature review of (Chaskin, 1999) writing in the context of partnerships, without community capacity, neighborhoods are at risk of being merely the recipient of goods or services, rather than a true partner in revitalization efforts in their neighborhood.

In addition to levels of social or community capacity, in order to function as a partner, each organization must have a degree of organizational capacity to manage projects and budgets and establish manageable objectives in order to keep people involved. (Chaskin& Peters, 2000) stated that designing projects that provide clear roles for residents is essential in ensuring resident involvement. If only one side of the partnership is involved in actual project management, there is no assurance that it is representative of shared interests or that there is any capacity for sustainability of a project.

## 6.0 summary, conclusions, limitations and recommendations

### 6.1 Summary

Mopani Mine implements several community projects as part of their CSR programme in Kankoyo. This research focused on all the projects, on sustainability. Although projects have many aspects to consider as a way of measuring its success, the research placed more emphasis on sustainability because sustainability is one of the avenues through which the community can benefit for a better livelihood.

Most actions identified in this study within community based projects are characterized as philanthropy, which created dependency on the Mine. In order to improve social aspects of community life, Mopani should consider partnering with other organizations, including GRZ, business or NGOs to maximize synergies and make use of complementary resources, knowledge and skills. They should avoid actions that perpetuate community dependence (Noiri water project) but instead increase community self-reliant initiatives. This calls for Mopani to be strategic and select areas to work where they see the benefit of that undertaking in the short or long term.

Finally, the researcher cannot provide empirical evidence of the relationship between community partnership and project sustainability, but would like to claim that lower sustainability levels are a result of low community partnership levels, amongst other factors. Globally effective community partnership in projects is seen as a means not an end to sustainability of CSR projects.

### 6.2 Conclusion

The analysis has showed that key participants (especially recipients of the project) have the greatest influence over project outcome. Generally, key participants include the recipient, council, GRZ, etc. Therefore, effective partnership of these has a significant impact on the project sustainability. As observed by Cohen and Frutcher, (2012), "One reason integration influences the project outcome is because "teamwork produces optimal results in nearly all fields of human behavior" and, creativity comes from teams with diverse backgrounds". Therefore, MCM must make teamwork (partnership) mandatory.

### 6.3 Limitations of the study

The characteristics of this study have certain limitations in the applicability of the findings.

- First, the empirical evidence was limited only to certain Mopani Mine operation, Kankoyo area only. Hence may not be applied in Kitwe.
- Secondly, a more detailed questionnaire with detailed and more specific questions could be more helpful to gain a wider understanding of other factors affecting the sustainability of CSR projects, apart from partnership.
- Finally, the limitation relates to generalizability of the findings, based on the findings that the study



was carried out in Kankoyo under Mopani Mines CSR, hence can't be generalized to other mining firms and areas. Therefore, future research should attempt to study among the mines and across areas.

#### 6.4 recommendations

- a) Accordingly, it is recommended that the community members should be well integrated into the planning, implementation and operation phases.
- b) Also, adequate and alternative maintenance arrangements should be put in place as part of the plan to ensure sustainability of the projects.

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## Appendix 1 HYPOTHESIS TESTING ANALYSIS

### Hypothesis Test: Mean vs. Hypothesized Value

<b>3.00000</b>	<b>hypothesized value</b>
<b>1.69217</b>	<b>mean partnership</b>
<b>0.84956</b>	<b>std. dev.</b>
<b>0.17715</b>	<b>std. error</b>
<b>23</b>	<b>n</b>
<b>22</b>	<b>df</b>
<b>-7.38 t</b>	
<b>1.0000</b>	<b>p-value (one-tailed, upper)</b>

## Appendix 2: Summary of CSR projects and cost of Kankoyo Township

Sector	Strategic goal	Project	Cost	Completion
Health	To improve the health status of the people in communities	Renovation of kankoyo Government Clinic No. 5	K116, 000	26/07/12
Water and sanitation	To improve hygiene of the people in communities	Kankoyo Water project ( installation of a domestic water line) and including ZMW 120, 000 per annum for water bills	K150,000	13/02/12
		Fencing of Norrie Drain, kankoyo township	K115,000	20/07/12
Education	To improve the educational and literacy levels of the people in communities	Construction of a Classroom Block at Muleya Winter School, Mufulira	K40, 000	04/12/12
		Rehabilitation of Ablution Block at Kakoyo Basic School	K42, 000	04/12/12
Social Infrastructure		Rehabilitation of kankoyo Zambia Police Post, Mufulira	K52, 000	6/07/12